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An Example of a Pharmacy for Inservice Education.

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\*Verbal Communication

ABSTRACT

This document lists chapters or sections from books and handbooks to assist inservice teachers in developing their verbal interactive skills in the classroom. Minicourse lessons and plans are referred to frequently. After an initial diagnosis of the teacher's performance level, a training counselor meets with the teacher and utilizes such a list to suggest specific learning activities to help the inservice improve his/her performance. (JA)



## An Example of a Pharmacy for Inservice Education

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The following list is an example of prescriptions for helping inservice teachers develop their verbal interactive skills in the classroom. After an initial diagnosis of the teacher's performance level, a training counselor meets with the teacher and suggests specific learning activities to help the inservice teacher improve his/her performance.

This method of identifying a set of prescriptions for a given area of teacher performance is being expanded to other areas of need for inservice professional development. A prescription list of this type is used only after an assessment of a teacher's present performance to suggest specific learning activities that would be the most useful to the teacher.

Reference numbers from 0-25.9 are reserved for reference to Minicourse chapters or lessons. For instance, the reference number 9.6 stands for Higher Cognitive Questioning, Minicourse number 9, chapter 6. It is felt that such a strategy will help the training counselor and the inservice teacher to more easily interpret the diagnosis evaluation sheet. Therefore, the reference numbers are not continuous. Reference numbers 26.0 and above are for references other than Minicourses and, in general, the first two digits refer to a specific book, paper or module cluster and the third digit to a specific portion of the book, paper or rnodule cluster.

- Effective Questioning In A Classroom Discussion, Minicourse #3, Far West Laboratory for Educational Research and Development; San Francisco, California, 1971. (Main Field Test Edition; one video tape, two audio tapes)
  - 3.0 "Practice Instructional Sequence"
    - a. teacher use of pauses
    - b. redirection
      - (1) involve more students
      - (2) decrease teacher talk
      - (3) increase student to student interaction
    - c. calling on non-volunteers
  - 3.1 "Instructional Sequence 1"
    - a. negative behaviors
      - (1) teacher repeats own question
      - (2) teacher answers own question
      - (3) teacher repeats student answer
  - 3.2 "Instructional Sequence 2"
    - a. probing
      - (1) prompting
      - (2) seeking further clarification

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- 3.3 "Instructional Sequence 3"
  - a. knowledge questions
  - b. comprehension questions
- 3.4 "Instructional Sequence 4"
  - a. analysis questions
- 3. 5 "Instructional Sequence 5"
  - a. evaluation questions
  - b. probing techniques
  - c. questioning strategies
- 4. Interaction Analysis, Minicourse #4 (Teacher Handbook), Far West Laboratory for Educational Research and Development, San Francisco, California, 1972. (Main Field Test Edition; five audio tapes)
  - 4.1 "Lesson 1 -- Learning to Use Flander's Interaction Analysis Categories" a. concepts of teacher behavior
  - 4.2 "Lesson 2 -- Teacher Initiation and Teacher Response"
    - a. teacher initiation vs. teacher response, i.e. I/D ratio
    - b. broad and narrow questions
    - c. use of initiation and response patterns
  - 4.3 "Lesson 3 -- Because Extensions and Effective Criticism"
    - a. praise or encourage because extensions
    - b. giving directions because extensions
    - c. criticizing or justifying authority because extensions
    - d. accepting feelings, praising or encouraging and accepting or using student ideas; all in conjunction with teacher criticizing behavior.
  - 4.4 "Lesson 4 -- Accepting and Using Student Ideas and Feelings"
    - a. acknowledging students' ideas
    - b. accepting students' ideas
    - c. using student's ideas
    - d. acceptance of students' feelings
  - 4.5 "Lesson 5 -- Self-Directed Inquiry into the Effects of Teacher Behavior on Student Behavior"
    - a. strategy to modify behavior
- 9. <u>Higher Cognitive Questioning</u>, Minicourse #9 (Teachers Handbook); Far West Laboratory for Educational Research and Development, Macmillian Educational Services, Inc., Beverly Hills, Calfironia, 1971. (6-16 mm films)



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- 9.2 Chapter Two "Higher Cognitive Questions: the Minicourse 9 Taxonomy" a. concept of question levels
- 9.4 Chapter 4 "Preliminary Lesson: Knowledge, Comprehension and Application Questions"
  - a. knowledge questions
  - b. comprehension questions
  - c. application questions
- 9.5 Chapter Five "Lesson 1, Improving the Quality of Student Answers"
  - a. probing
  - b. student high level response
- 9.6 Chapter Six "Lesson 2, Analysis Questions"
  - a. analysis questions
  - b. probing through analysis questions
- 9.7 Chapter 7 "Lesson 3, Synthesis Questions"
  - a. synthesis questions
  - b. probing through synthesis questions
- 9.8 Chapter 8 "Lesson 4, Evaluation Questions"
  - a. evaluation questions
  - b. probing through evaluation questions
- 9.9 Chapter 9 "Follow-up Activities"
  - a. questioning strategies
- 14. "Discussing Controversial Issues", Minicourse #14, (Teacher Handbook);
  Far West Laboratory for Educational Research and Development; San Francisco,
  California, 1972. (four video tapes)
  - 14.1 Chapter 1 "Planning"
    - a. topic or issue selection
    - b. teacher contribution
  - 14.2 Chapter 2, Lesson 1 "Creating an Open Discussion"
    - a. use of silence
    - b. calling on silent students
    - c. discussion strategies
  - 14.3 Chapter 3, Lesson 2 "Keeping the Discussion Focused"
    - a. informing students of objectives
    - b. restate the ussue at hand
    - c. summarizing student statements



- 14.4 Chapter 4, Lesson 3 "Analyzing Different Points of View"
  - a. teacher asks for clarification of student ideas-probing
  - b. ask for reasons -- analysis questions
- 20. <u>Divergent Thinking</u>, Minicourse #20 (Teacher Handbook); Far West Laboratory for Educational Research and Development; San Francisco, California, 1971. (Main Field Test Edition, 6 video tapes)
  - 20.1 Lesson One "Introduction to Divergent Thinking"
    - a. creativity--high level student responses
    - b. large number of responses
    - c. divergent and convergent strategies -- narrow and broad questions
    - d. repeating student answers
    - e. pauses and use of silence
    - f. conversational asides
    - g. teacher answers own questions
  - 20.2 Lesson Two "Brainstorming"
    - a. deferred evaluation -- use of praise and criticism
    - b. hitchhiking -- prompting
    - c. when to use strategy
  - 20.3 Lesson Three "Techniques for Stimulating Brainstorming"
    - a. probing
    - b. stimulating responses
    - c. "categorizing" strategy
  - 20.4 Lesson Four "Ways to Use Brainstorming"
    - a. problem solving questions
    - b. cause seeking questions
    - c. consequence seeking questions
  - 20.5 Lesson Five "Evaluating Problem Solutions"
    - a. sequence strategy for problem solving
    - b. concepts of problem solving process
    - c. evaluation questions
- 26. Protocols on Group Process, (Handbook); Stanford Center for Research and Development in Teaching and Far West Laboratory for Educational Research and Development; San Francisco, California, 1972. (four video tapes)
  - 26.1 "Stages of Group Growth"
    - a. initial communication
    - b. conflict which blocks achievement of the group goal
    - c. resolution of conflict
    - d. increased productivity



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- 26.2 "Task Roles"
  - a. initiating-
  - b. information seeking
  - c. information giving
  - d. opinion giving
  - e orienting
  - f. coordinating
- 26.3 "Unifying Roles"
  - a. energizing
  - b. harmonizing
  - c. compromising
  - d. gatekeeping
  - e. encouraging
- 26.4 "Anti-Group Behavior"
  - a. aggressing
  - b. blocking
  - c. attention seeking
  - d. dominating
  - e. non-cooperating
- 27. Handbook on Formative and Summative Evaluation of Student Learning:
  Bloom, B. S.; Hastings, J. T.; Madaus, G. F.; New York: McGraw-Hill, 1971.
  - 27.7 Chapter 7 "Evaluation Techniques for Knowledge and Comprehension Objectives"
    - a. knowledge questions
    - b. comprehension questions
  - 27.8 Chapter 8 "Evaluation Techniques for Application and Analysis Objectives"
    - a. application questions
    - b. analysis questions
  - 27.9 Chapter 9 "Evaluation Techniques for Synthesis and Evaluation Objectives"
    - a. synthesis questions
    - b. evaluation questions
- 28. Classroom Questions: What Kinds? Sanders, N.M.; New York: Harper and Row; 1966.
  - 28.1 Chapter 1 "Questions Designed for more than Memory" a. questioning hierarchy
  - 28.2 Chapter 2 "Memory"
    - a. knowledge questions



- 28.3 Chapter 3 "Translation" a. comprehension questions
- 28.4 Chapter 4 "Interpretation" a. comprehension questions
- 28.5 Chapter 5 "Application" a.. application questions
- 28.6 Chapter 6 "Analysis" a. analysis questions
- 28.7 Chapter 7 "Synthesis"

  a. synthesis questions
- 28.8 Chapter 8 "Evaluation" a. evaluation questions
- 28.9 Chapter 9 "Planning for Questioning" a. questioning strategies
- Variety and Variation (Protocol Handbook); Far West Laboratory for Educational Research and Development and Stanford Center for Research and Development in Teaching; San Francisco, California, 1971. (I video tape)
  - 29. 1 Ideas for maintaining pupils attention to task.
- Praise and Corrective Feedback (Protocol Handbook); Far West Laboratory for Educational Research and Development and Stanford Center for Research and Development in Teaching; San Francisco, California, 1971. (I video tape)
  - 30.1 Praise
  - 30.2 Corrective Feedback
    - a. cueing and prompting
    - b. giving directions
    - c. maintaining responses
    - d. probing
- 31. Questioning (Protocol Handbook) Far West Laboratory for Educational Research and Development and Stanford Center for Research and Development in Teaching; San Francisco, California, 1971. (1 video tape)
  - 31.1 Concept of high and low order questions.



- 32. <u>Using Student Ideas</u> (Protocol Handbook); Far West Laboratory for Educational Research and Development and Stanford Center for Research and Development in Teaching; San Francisco, California, 1971. (1 video tape)
  - 32.1 Acknowledging Student Ideas
    - a. simple acknowledgement
    - b. reinforcement
    - c. restatement
    - d. summarization
  - 32.2 Acting on Student Ideas
    - a. application
    - b. comparison

